

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of)	Mail Stop APPEAL BRIEF -
Bradford G. Baruh)	PATENTS
Application No.: 10/779,471)	Group Art Unit: 3679
Filed: February 13, 2004)	Examiner: AARON M.
For: DEVICE AND METHOD FOR)	DUNWOODY
COUPLING PIPES)	Appeal No.: Not yet assigned
)	
)	
)	

APPEAL BRIEF

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This appeal is from the decision of the Primary Examiner dated August 24, 2010, finally rejecting claims 1-6, 11, and 23-36, which are reproduced as the Claims Appendix of this brief, and the Notice of Panel Decision from Pre-Appeal Brief Review dated February 25, 2011,

1. Real Party in Interest

The present application is assigned to BGB Enterprises, LLC. BGB Enterprises, LLC is the real party in interest, and is the assignee of Application No. 10/779,471.

2. Related Appeals and Interferences

The Appellant legal representative, or assignee, does not know of any other appeal or interferences, which will affect or be directly affected by or have bearing on the Board's decision in the pending appeal.

3. Status of Claims

Claims 1-6, 11, and 23-36 stand finally rejected.

Claim 7-10 and 12-22 have been canceled.

Claims 33-35 have been withdrawn.

The final rejection of Claims 1-6, 11, 23-32, and 36 is hereby appealed.

4. Status of Amendments

No Amendments were filed in response to the Office Action mailed August 24, 2010.

5. Summary Claimed Subject Matter

A. Explanation of the Claimed Invention

The subject matter of the claims presently under appeal, pertain to pipe coupling, which includes an elongated housing defining an elongated bore therein, a stop located on an inner diameter of the housing, a first cylindrical bore extending from the first end to the stop; and a second cylindrical bore extending from the second end to the stop. The cylindrical bores are configured to allow a pipe end to advance into the pipe coupling until reaching the stop. Examples of such a pipe coupling are shown in FIGS. 24-26, and described in paragraphs [0076]-[0080] on pages 19 and 20 of the specification.

B. Summary of the Claimed Subject Matter

Three of the appealed claims are in independent format: Claims 1, 11, and 23. Reference is made to FIGS. 24-26. However, the comparison of the claimed subject matter to the specification and drawings is not meant to limit the claim language and is instead done for the convenience of the Board.

Independent Claim 1 recites a pipe coupling (200: FIGS. 24-26; paragraph [0076]) consisting of: an elongated housing (202: FIGS. 24-26; paragraph [0076]) having a first end and a second end (204, 206: FIGS. 24-26; paragraph [0076]), the housing defining an elongated bore therein (Paragraph [0076]); a stop (208: FIGS.

24-26; paragraph [0076]) located on an inner diameter (220: FIGS. 24-26; paragraph [0076]) of the housing, the stop located between the first end and the second ends of the housing, wherein a distance from the stop to one of the first and second ends is at least two times a distance from the stop to the other of the first and second end of the housing (Paragraph [0076]); a first cylindrical bore (210: FIGS. 24-26; paragraph [0077]) extending from the first end to the stop; and a second cylindrical bore (212; FIGS. 24-26; paragraph [0077]) extending from the second end to the stop, wherein the angle between the first cylindrical bore and the second cylindrical bore is about 15 degrees to about 165 degrees (FIGS. 24-26; paragraphs [0077] and [0078]), and wherein each of the cylindrical bores are configured to allow a pipe end to advance into the pipe coupling until reaching the stop.

Dependent Claim 2 recites the pipe coupling of Claim 1, wherein the angle between the first cylindrical bore and the second cylindrical bore is about 45 degrees. (FIG. 25; paragraphs [0077] and [0078]).

Dependent Claim 3 recites the pipe coupling of Claim 1, wherein the angle between the first cylindrical bore and the second cylindrical bore is about 60. (FIG. 26; paragraphs [0077] and [0078]).

Dependent Claim 4 recites the pipe coupling of Claim 1, wherein the angle between the first cylindrical bore and the second cylindrical bore is about 90. (FIG. 24; paragraphs [0077] and [0078]).

Dependent Claim 5 recites the pipe coupling of Claim 1, wherein the angle between the first cylindrical bore and the second cylindrical bore is about 120 degrees. (FIGS. 24-26; paragraphs [0077] and [0078]).

Dependent Claim 6 recites the pipe coupling of Claim 1, wherein the angle between the first cylindrical bore and the second cylindrical bore is about 135 degrees. (FIGS. 24-26; paragraphs [0077] and [0078]).

Independent Claim 11 recites a pipe coupling (200: FIGS. 24-26; paragraph [0076]) consisting of: an elongated housing (202: FIGS. 24-26; paragraph [0076]) having a first end and a second end (204, 206: FIGS. 24-26; paragraph [0076]), the housing defining an elongated bore therein (Paragraph [0076]); a stop (208: FIGS. 24-26; paragraph [0076]) located on an inner diameter (220: FIGS. 24-26; paragraph [0076]) of the housing, the stop located between the first end and the

second ends of the housing, wherein a distance from the stop to one of the first and second ends is at least two times a distance from the stop to the other of the first and second end of the housing (Paragraph [0076]); a first cylindrical bore (210: FIGS. 24-26; paragraph [0077]) extending from the first end to the stop; and a second cylindrical bore (212: FIGS. 24-26; paragraph [0077]) extending from the second end to the stop, wherein the angle between the first cylindrical bore and the second cylindrical bore is about 15 degrees to about 165 degrees (FIGS. 24-26; paragraphs [0077] and [0078]), and wherein each of the cylindrical bores are configured to allow a pipe end to advance into the pipe coupling until reaching the stop.

Independent Claim 23 recites a pipe coupling (200: FIGS. 24-26; paragraph [0076]) comprising: an elongated housing (202: FIGS. 24-26; paragraph [0076]) having a first end and a second end (204, 206: FIGS. 24-26; paragraph [0076]), the housing defining an elongated bore therein (Paragraph [0076]); a single stop (208: FIGS. 24-26; paragraph [0076]) located on an inner diameter (220: FIGS. 24-26; paragraph [0076]) of the housing, the stop located between the first end and the second ends of the housing, wherein a distance from the stop to one of the first and second ends is at least two times a distance from the stop to the other of the first and second end of the housing (Paragraph [0076]); a first cylindrical bore (210: FIGS. 24-26; paragraph [0077]) extending from the first end to the stop; and a second cylindrical bore (212; FIGS. 24-26; paragraph [0077]) extending from the second end to the stop, wherein an angle between the first cylindrical bore and the second cylindrical bore is about 15 degrees to about 165 degrees (FIGS. 24-26; paragraphs [0077] and [0078]). Dependent Claims 24-28 recite the pipe coupling of Claim 23, wherein the angle between the first cylindrical bore and the second cylindrical bore is about 45 degrees to 135 degrees. (FIGS. 24-26; paragraph [0077] and [0078]).

Dependent Claim 24 recites the pipe coupling of Claim 23, wherein the angle between the first cylindrical bore and the second cylindrical bore is about 45 degrees. (FIG. 25; paragraphs [0077] and [0078]).

Dependent Claim 25 recites the pipe coupling of Claim 23, wherein the angle between the first cylindrical bore and the second cylindrical bore is about 60. (FIG. 26; paragraphs [0077] and [0078]).

Dependent Claim 26 recites the pipe coupling of Claim 23, wherein the angle between the first cylindrical bore and the second cylindrical bore is about 90. (FIG. 24; paragraphs [0077] and [0078]).

Dependent Claim 27 recites the pipe coupling of Claim 23, wherein the angle between the first cylindrical bore and the second cylindrical bore is about 120 degrees. (FIGS. 24-26; paragraphs [0077] and [0078]).

Dependent Claim 28 recites the pipe coupling of Claim 23, wherein the angle between the first cylindrical bore and the second cylindrical bore is about 135 degrees. (FIGS. 24-26; paragraphs [0077] and [0078]).

Dependent Claim 29 recites the pipe coupling of Claim 1, wherein the stop is a single stop located on the inner diameter of the housing. (FIGS. 24-26; paragraphs [0076]).

Dependent Claim 30 recites the pipe coupling of Claim 11, wherein the stop is a single stop located on the inner diameter of the housing. (FIGS. 24-26; paragraphs [0076]).

Dependent Claim 31 recites the pipe coupling of Claim 1, wherein the angle between the first cylindrical bore and the second cylindrical bore is about 45 degrees to about 135 degrees. (FIGS. 24-26; paragraphs [0077] and [0078]).

Dependent Claim 32 recites the pipe coupling of Claim 1, wherein the angle between the first cylindrical bore and the second cylindrical bore is about 60 degrees to about 90 degrees. (FIGS. 24-26; paragraphs [0077] and [0078]).

Dependent Claim 36 recites the pipe coupling of Claim 23, wherein each of the cylindrical bores are configured to allow a pipe end to advance into the pipe coupling until reaching the stop. (FIGS. 24-26; paragraphs [0076]-[0078]).

6. Grounds of Rejection to be Reviewed on Appeal

1. Claims 1, 11, 23, 29, 30 and 36 were rejected under 35 U.S.C. 102(b) as allegedly anticipated by JP 01-182694, Ezaki et al. (hereinafter "Ezaki").

2. Claims 2-6, 24-28, 31 and 32 were rejected under 35 U.S.C. 103(a) as allegedly unpatentable over Ezaki et al. (hereinafter "Ezaki") in view of U.S. Patent No. 3,995,888, McIlroy (hereinafter "McIlroy").

7. **Argument**

A. Legal Standards - Obviousness

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.

Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). M.P.E.P. § 2131

Under 35 U.S.C. §103(a), the Examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. M.P.E.P. § 2142. As set forth in M.P.E.P. § 2143, one requirement for establishing a *prima facie* case of obviousness is that the combination of references must teach or suggest all the claim features. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

As set forth in 35 U.S.C. § 103(a):

A patent may not be obtained though the invention is not identically disclosed or described ... if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. (Emphasis added.)

Additionally, the Patent Office bears the initial burden of establishing a factual basis to support the legal conclusion of obviousness. *See In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992); *In re Piasecki*, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984). The Office must make the factual determinations set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 17, 148 USPQ 459, 467 (1966).

For rejections under 35 U.S.C. § 103(a) that are based upon a combination of prior art elements, the Supreme Court stated in *KSR Int'l v. Teleflex Inc.*, 127 S.Ct. 1727, 1741, 82 USPQ2d 1385, 1396 (2007), that "[a]s is clear from cases such as *Adams*, a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art." Rather, as stated in *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir.), "rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational

underpinning to support the legal conclusion of obviousness." *See also In re Fine*, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988).

B. Claim 1 is patentable over Ezaki, since Ezaki does not disclose the existence of an elongated housing or bore therein

Claim 1 stands rejected under 35 U.S.C. 102(b) as allegedly anticipated by JP 01-182694, Ezaki et al. (hereinafter "Ezaki").

Claim 1 recites a pipe coupling comprising: an elongated housing having a first end and a second end, the housing defining an elongated bore therein; a stop located on an inner diameter of the housing, the stop located between the first end and the second ends of the housing, wherein a distance from the stop to one of the first and second ends is at least two times a distance from the stop to the other of the first and second end of the housing; a first cylindrical bore extending from the first end to the stop; and a second cylindrical bore extending from the second end to the stop, wherein an angle between the first cylindrical bore and the second cylindrical bore is about 15 degrees to about 165 degrees, and wherein each of the cylindrical bores are configured to allow a pipe end to advance into the pipe coupling until reaching the stop.

The Final Rejection alleges:

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the width and length not being equal) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. *See In re Van Geuns*, 988 F.2d 1181, 26 USPQ 1057 (Fed. Cir. 1993).

Applicant argues that Ezaki et al do not teach or disclose that each of the cylindrical bores are configured to allow a pipe end to advance into the pipe coupling until reaching the stop. The Examiner disagrees. It has been held that the recitation that an element is "adapted to [configured to]" perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchinson*, 69 USPQ 138. The Ezaki et al

invention is fully capable of allowing a pipe end to advance into the pipe coupling until reaching the stop. (See pages 6 and 7 of the Final Rejection).

The Final Rejection fails to give proper weight to the functional limitations of the claims. MPEP 2173.05(g) stipulates:

"A functional limitation must be evaluated and considered, just like any other limitation of the claim, for what it fairly conveys to a person of ordinary skill in the pertinent art in the context in which it is used. A functional limitation is often used in association with an element, ingredient, or step of a process to define a particular capability or purpose that is served by the recited element, ingredient or step."

The "configure to" language, relating to the claimed features of being configured to allow a pipe end to advance into the pipe coupling until reaching the stop, must be given patentable weight. The features of the present claims set forth functional limitations which specify a structural relationship and the manner in which the components must be capable of functioning, and must be found in the prior art in order to support a rejection. *Ex Parte Van Zee*, Appeal No. 2007-4328, 8 (BPAI, decided February 28, 2008). *See also Ex Parte Rainer*, Appeal No. 2007-3079, 9 (BPAI, decided January 17, 2008) (stating that "a functional limitation must be evaluated and considered, just like any other limitation of the claim, for what it fairly conveys to a person of ordinary skill in the pertinent art in the context in which it is used.") and *Innova/Pure Water Inc. v. Safari Water Filtration Systems Inc.*, 72 USPQ2d 1001, 1008 (Fed. Cir. 2004) (interpreting the claim term "operatively connected" in conjunction with a recitation in the preamble of a "filter assembly" to mean that the parts are arranged in a manner capable of performing the function of filtering).

Ezaki relates a pipe fitting, wherein "[e]ach of butting end faces 101, 102 of pipe bodies 1, 2 is formed into an almost circular incline with angles θ_1 , θ_2 to virtual cutting planes (A), (B) perpendicular to respective axes 01, 02. Accordingly, these butting end faces 101, 201 as each rotational surface whereby each connected angle of these pipe bodies 1, 2 can be variably adjusted." (See English Abstract of Ezaki).

Ezaki does not disclose the existence of an elongated housing or elongated bore therein as recited in Claim 1. Elongate or elongated refers to "1: stretched out

2: slender" Merriam-Webster's Collegiate Dictionary, Tenth Edition. On the contrary, Ezaki relates to a pipe fitting, which has approximately the same diameter (or width) as length. Furthermore, if the pipe fitting of Ezaki had an elongated housing as recited in Claim 1, the pipe fitting of Ezaki would be unable "[t]o make the connected angle of a pipe body variably adjustable in an easy manner by forming each of butting end faces of the pipe body into an almost circular inclined angled with a virtual cutting plane perpendicular to the axis" as described in the English Abstract of Ezaki.

In addition, as recited in Claim 1, Ezaki does not teach or disclose that each of the cylindrical bores are configured to allow a pipe end to advance into the pipe coupling until reaching the stop. Rather, as shown in FIGS. 1 and 7 of Ezaki, a pipe end would be free to extend through the stop rather than advancing into the pipe coupling until reaching the stop as recited in Claim 1.

For the reasons set forth above, Claim 1 should be allowable.

Accordingly, reversal of Claim 1 is respectfully requested.

C. Claims 2-6 should be allowable over Ezaki in view of Mcllroy since Ezaki does not disclose the existence of an elongated housing or bore therein as set forth above

Claims 2-6 stand rejected under 35 U.S.C. 103(a) as allegedly unpatentable over Ezaki et al. in view of U.S. Patent No. 3,995,888, Mcllroy (hereinafter "Mcllroy").

Claim 2 recites the pipe coupling of Claim 1, wherein the angle between the first cylindrical bore and the second cylindrical bore is about 45 degrees.

Claim 3 recites the pipe coupling of Claim 1, wherein the angle between the first cylindrical bore and the second cylindrical bore is about 60.

Claim 4 recites the pipe coupling of Claim 1, wherein the angle between the first cylindrical bore and the second cylindrical bore is about 90.

Claim 5 recites the pipe coupling of Claim 1, wherein the angle between the first cylindrical bore and the second cylindrical bore is about 120 degrees.

Claim 6 recites the pipe coupling of Claim 1, wherein the angle between the first cylindrical bore and the second cylindrical bore is about 135 degrees.

According to the Examination Guidelines for Determining Obviousness, 72 Fed. Reg. 57526, 57528 (Oct. 10, 2007), Office personnel must resolve the Graham factual inquiries and then articulate the following:

(1) a finding that the prior art included each element claimed, although not necessarily in a single prior art reference, with the only difference between the claimed invention and the prior art being the lack of actual combination of the elements in a single prior art reference;

(2) a finding that one of ordinary skill in the art could have combined the elements as claimed by known methods, and that in combination, each element merely would have performed the same function as it did separately;

(3) a finding that one of ordinary skill in the art would have recognized that the results of the combination were predictable; and

(4) whatever additional findings based on the Graham factual inquiries may be necessary, in view of the facts of the case under consideration, to explain a conclusion of obviousness. *Id.*

In *Ex Parte Whalen*, 89 USPQ2d 1078 (BPAI 2008), the Board articulated that "obviousness cannot be proven merely showing that the elements of a claimed device were known in the prior art" (emphasis added). The Board stated that to demonstrate obviousness, "it must be shown that those of ordinary skill in the art would have had some 'apparent reason' to combine the known elements in the fashioned claimed." *Id.* (quoting *KSR Int'l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1741 (2007)) (emphasis added).

The Official Action takes the position that Ezaki discloses the claimed invention except for the angle between the first cylindrical bore and the second cylindrical bore being about 45, 60, 90, 120, 135 degrees. Acknowledging that Ezaki fails to disclose the respective angles, McIlroy is cited for disclosure of "angles (acute and obtuse) between a first cylindrical bore and a second cylindrical bore (col. 3, lines 4-7). The Official Action also takes the position that "[i]t would have been obvious to one having ordinary skill in the art at the time the invention was made to provide an angle between the first cylindrical bore and the second cylindrical bore of about 45, 60, 90, 120, 135 degrees, since such a change is the shape of a prior art device is a design consideration within the level of skill of one skilled in the art. In re

Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966)". (See page 5 of the final rejection dated August 24, 2010).

However, the purpose of Ezaki is "[t]o make the connected angle of a pipe body variably adjustable in an easy manner by forming each of butting end faces of the pipe body into an almost circular inclined angled with a virtual cutting plane perpendicular to the axis." Thus, by changing the angle of each of the butting end faces to be about 45, 60, 90, 120, and 135, the variably adjustable function of Ezaki's pipe fitting would not be achieved with an angle of 45, 60, 90, 120 and/or 135 as recited in Claims 2-6.

For the reasons set forth above as to Claim 1, and further since Claims 2-6 are dependent from Claim 1, Claims 2-6 should be allowable.

Accordingly, reversal of Claims 2-6 is respectfully requested.

D. Claim 11 is patentable over Ezaki, since Ezaki does not disclose the existence of an elongated housing or bore therein

Claim 11 stands rejected under 35 U.S.C. 102(b) as allegedly anticipated by JP 01-182694, Ezaki et al. (hereinafter "Ezaki").

Claim 11 recites a pipe coupling consisting of: an elongated housing having a first end and a second end, the housing defining an elongated bore therein; a stop located on an inner diameter of the housing, the stop located between the first end and the second ends of the housing, wherein a distance from the stop to one of the first and second ends is at least two times a distance from the stop to the other of the first and second end of the housing; a first cylindrical bore extending from the first end to the stop; and a second cylindrical bore extending from the second end to the stop, wherein the angle between the first cylindrical bore and the second cylindrical bore is about 15 degrees to about 165 degrees, and wherein each of the cylindrical bores are configured to allow a pipe end to advance into the pipe coupling until reaching the stop.

Ezaki relates a pipe fitting, wherein "[e]ach of butting end faces 101, 102 of pipe bodies 1, 2 is formed into an almost circular incline with angles θ_1 , θ_2 to virtual cutting planes (A), (B) perpendicular to respective axes 01, 02. Accordingly, these butting end faces 101, 201 as each rotational surface whereby each connected

angle of these pipe bodies 1, 2 can be variably adjusted." (See English Abstract of Ezaki).

Ezaki does not disclose the existence of an elongated housing or elongated bore therein as recited in Claim 11. Elongate or elongated refers to "1: stretched out 2: slender" Merriam-Webster's Collegiate Dictionary, Tenth Edition. On the contrary, Ezaki relates to a pipe fitting, which has approximately the same diameter (or width) as length. Furthermore, if the pipe fitting of Ezaki had an elongated housing as recited in Claim 11, the pipe fitting of Ezaki would be unable "[t]o make the connected angle of a pipe body variably adjustable in an easy manner by forming each of butting end faces of the pipe body into an almost circular inclined angled with a virtual cutting plane perpendicular to the axis" as described in the English Abstract of Ezaki.

In addition, as recited in Claim 11, Ezaki does not teach or disclose that each of the cylindrical bores are configured to allow a pipe end to advance into the pipe coupling until reaching the stop. Rather, as shown in FIGS. 1 and 7 of Ezaki, a pipe end would be free to extend through the stop rather than advancing into the pipe coupling until reaching the stop as recited in Claim 11.

For the reasons set forth above, Claim 11 should be allowable.

Accordingly, reversal of Claim 11 is respectfully requested.

E. Claim 23 is patentable over Ezaki, since Ezaki does not disclose the existence of an elongated housing or bore therein

Claim 23 stands rejected under 35 U.S.C. 102(b) as allegedly anticipated by JP 01-182694, Ezaki et al. (hereinafter "Ezaki").

Claim 23 recites a pipe coupling comprising: an elongated housing having a first end and a second end, the housing defining an elongated bore therein; a single stop located on an inner diameter of the housing, the stop located between the first end and the second ends of the housing, wherein a distance from the stop to one of the first and second ends is at least two times a distance from the stop to the other of the first and second end of the housing; a first cylindrical bore extending from the first end to the stop; and a second cylindrical bore extending from the second end to

the stop, wherein an angle between the first cylindrical bore and the second cylindrical bore is about 15 degrees to about 165 degrees.

Ezaki relates a pipe fitting, wherein "[e]ach of butting end faces 101, 102 of pipe bodies 1, 2 is formed into an almost circular incline with angles θ_1 , θ_2 to virtual cutting planes (A), (B) perpendicular to respective axes 01, 02. Accordingly, these butting end faces 101, 201 as each rotational surface whereby each connected angle of these pipe bodies 1, 2 can be variably adjusted." (See English Abstract of Ezaki).

Ezaki does not disclose the existence of an elongated housing or elongated bore therein as recited in Claim 23. Elongate or elongated refers to "1: stretched out 2: slender" Merriam-Webster's Collegiate Dictionary, Tenth Edition. On the contrary, Ezaki relates to a pipe fitting, which has approximately the same diameter (or width) as length. Furthermore, if the pipe fitting of Ezaki had an elongated housing as recited in Claim 23, the pipe fitting of Ezaki would be unable "[t]o make the connected angle of a pipe body variably adjustable in an easy manner by forming each of butting end faces of the pipe body into an almost circular inclined angled with a virtual cutting plane perpendicular to the axis" as described in the English Abstract of Ezaki.

In addition, as recited in Claim 23, Ezaki does not teach or disclose that each of the cylindrical bores are configured to allow a pipe end to advance into the pipe coupling until reaching the stop. Rather, as shown in FIGS. 1 and 7 of Ezaki, a pipe end would be free to extend through the stop rather than advancing into the pipe coupling until reaching the stop as recited in Claim 23.

For the reasons set forth above, Claim 23 should be allowable.

Accordingly, reversal of Claim 23 is respectfully requested.

F. Claims 24-28 should be allowable over Ezaki in view of McIlroy since Ezaki does not disclose the existence of an elongated housing or bore therein as set forth above

Claims 24-28 stand rejected under 35 U.S.C. 103(a) as allegedly unpatentable over Ezaki et al. in view of U.S. Patent No. 3,995,888, McIlroy (hereinafter "McIlroy").

Claim 24 recites the pipe coupling of Claim 23, wherein the angle between the first cylindrical bore and the second cylindrical bore is about 45 degrees.

Claim 25 recites the pipe coupling of Claim 23, wherein the angle between the first cylindrical bore and the second cylindrical bore is about 60.

Claim 26 recites the pipe coupling of Claim 23, wherein the angle between the first cylindrical bore and the second cylindrical bore is about 90.

Claim 27 recites the pipe coupling of Claim 23, wherein the angle between the first cylindrical bore and the second cylindrical bore is about 120 degrees.

Claim 28 recites the pipe coupling of Claim 23, wherein the angle between the first cylindrical bore and the second cylindrical bore is about 135 degrees.

According to the Examination Guidelines for Determining Obviousness, 72 Fed. Reg. 57526, 57528 (Oct. 10, 2007), Office personnel must resolve the Graham factual inquiries and then articulate the following:

(1) a finding that the prior art included each element claimed, although not necessarily in a single prior art reference, with the only difference between the claimed invention and the prior art being the lack of actual combination of the elements in a single prior art reference;

(2) a finding that one of ordinary skill in the art could have combined the elements as claimed by known methods, and that in combination, each element merely would have performed the same function as it did separately;

(3) a finding that one of ordinary skill in the art would have recognized that the results of the combination were predictable; and

(4) whatever additional findings based on the Graham factual inquiries may be necessary, in view of the facts of the case under consideration, to explain a conclusion of obviousness. *Id.*

In *Ex Parte Whalen*, 89 USPQ2d 1078 (BPAI 2008), the Board articulated that "obviousness cannot be proven merely showing that the elements of a claimed device were known in the prior art" (emphasis added). The Board stated that to demonstrate obviousness, "it must be shown that those of ordinary skill in the art would have had some 'apparent reason to combine the known elements in the fashioned claimed.'" *Id.* (quoting *KSR Int'l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1741 (2007)) (emphasis added).

The Official Action takes the position that Ezaki discloses the claimed invention except for the angle between the first cylindrical bore and the second cylindrical bore being about 45, 60, 90, 120, 135 degrees. Acknowledging that Ezaki fails to disclose the respective angles, McIlroy is cited for disclosure of "angles (acute and obtuse) between a first cylindrical bore and a second cylindrical bore (col. 3, lines 4-7). The Official Action also takes the position that "[i]t would have been obvious to one having ordinary skill in the art at the time the invention was made to provide an angle between the first cylindrical bore and the second cylindrical bore of about 45, 60, 90, 120, 135 degrees, since such a change in the shape of a prior art device is a design consideration within the level of skill of one skilled in the art. In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966)". (See page 5 of the final rejection dated August 24, 2010).

However, the purpose of Ezaki is "[t]o make the connected angle of a pipe body variably adjustable in an easy manner by forming each of butting end faces of the pipe body into an almost circular inclined angle with a virtual cutting plane perpendicular to the axis." Thus, by changing the angle of each of the butting end faces to be about 45, 60, 90, 120, and 135, the variably adjustable function of Ezaki's pipe fitting would not be achieved with an angle of 45, 60, 90, 120 and/or 135 as recited in Claims 24-28.

For the reasons set forth above as to Claim 23, and further since Claims 24-28 are dependent from Claim 23, Claims 24-28 should be allowable.

Accordingly, reversal of Claims 24-28 is respectfully requested.

G. Dependent Claim 29 is allowable for at least the reasons Claim 1 is allowable

Claim 29 stands rejected under 35 U.S.C. 102(b) as allegedly anticipated by JP 01-182694, Ezaki et al. (hereinafter "Ezaki").

Claim 29 recites the pipe coupling of Claim 1, wherein the stop is a single stop located on the inner diameter of the housing.

As set forth above, Claim 29 is dependent from Claim 1, and for the reasons enumerated above as to Claim 1, Claim 29 should be allowable.

Accordingly, reversal of Claim 29 is respectfully requested.

H. Dependent Claim 30 is allowable for at least the reasons Claim 11 is allowable

Claim 30 stands rejected under 35 U.S.C. 102(b) as allegedly anticipated by JP 01-182694, Ezaki et al. (hereinafter "Ezaki").

Claim 30 recites the pipe coupling of Claim 11, wherein the stop is a single stop located on the inner diameter of the housing.

As set forth above, Claim 30 is dependent from Claim 11, and for the reasons enumerated above as to Claim 11, Claim 30 should be allowable.

Accordingly, reversal of Claim 30 is respectfully requested.

I. Dependent Claim 31 is allowable for at least the reasons Claim 1 is allowable

Claim 31 stands rejected under 35 U.S.C. 103(a) as allegedly unpatentable over Ezaki et al. (hereinafter "Ezaki") in view of U.S. Patent No. 3,995,888, McIlroy (hereinafter "McIlroy").

Claim 31 recites the pipe coupling of Claim 1, wherein the angle between the first cylindrical bore and the second cylindrical bore is about 45 degrees to about 135 degrees.

As set forth above, Claim 31 is dependent from Claim 1, and for the reasons enumerated above as to Claim 1, Claim 31 should be allowable.

Accordingly, reversal of Claim 31 is respectfully requested.

J. Dependent Claim 32 is allowable for at least the reasons Claim 1 is allowable

Claim 32 stands rejected under 35 U.S.C. 103(a) as allegedly unpatentable over Ezaki et al. (hereinafter "Ezaki") in view of U.S. Patent No. 3,995,888, McIlroy (hereinafter "McIlroy").

Claim 32 recites the pipe coupling of Claim 1, wherein the angle between the first cylindrical bore and the second cylindrical bore is about 60 degrees to about 90 degrees.

As set forth above, Claim 32 is dependent from Claim 1, and for the reasons enumerated above as to Claim 1, Claim 32 should be allowable.

Accordingly, reversal of Claim 32 is respectfully requested.

K. Dependent Claim 36 is allowable for at least the reasons Claim 23 is allowable

Claim 36 stands rejected under 35 U.S.C. 102(b) as allegedly anticipated by JP 01-182694, Ezaki et al. (hereinafter "Ezaki").

Claim 36 recites the pipe coupling of Claim 23, wherein each of the cylindrical bores are configured to allow a pipe end to advance into the pipe coupling until reaching the stop.

As set forth above, Claim 36 is dependent from Claim 23, and for the reasons enumerated above as to Claim 23, Claim 36 should be allowable.

Accordingly, reversal of Claim 36 is respectfully requested.

8. Claims Appendix

See attached Claims Appendix for a copy of the claims involved in the appeal.

9. Evidence Appendix

No Evidence Appendix is attached, because no evidence relied upon by Appellant is identified.

10. Related Proceedings Appendix

No Related Proceedings Appendix is attached, since no Related Proceedings are identified in Section II, supra.

The Commissioner is hereby authorized to charge any appropriate fees under 37 C.F.R. §§1.16, 1.17, and 1.21 that may be required by this paper, and to credit any overpayment, to Deposit Account No. 02-4800.

Respectfully submitted,

BUCHANAN INGERSOLL & ROONEY LLP

Date April 25, 2011

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VIII. CLAIMS APPENDIX

The Appealed Claims

1. A pipe coupling comprising:
an elongated housing having a first end and a second end, the housing defining an elongated bore therein;
a stop located on an inner diameter of the housing, the stop located between the first end and the second ends of the housing, wherein a distance from the stop to one of the first and second ends is at least two times a distance from the stop to the other of the first and second end of the housing;
a first cylindrical bore extending from the first end to the stop; and
a second cylindrical bore extending from the second end to the stop, wherein an angle between the first cylindrical bore and the second cylindrical bore is about 15 degrees to about 165 degrees, and wherein each of the cylindrical bores are configured to allow a pipe end to advance into the pipe coupling until reaching the stop.
2. The pipe coupling of Claim 1, wherein the angle between the first cylindrical bore and the second cylindrical bore is about 45 degrees.
3. The pipe coupling of Claim 1, wherein the angle between the first cylindrical bore and the second cylindrical bore is about 60.
4. The pipe coupling of Claim 1, wherein the angle between the first cylindrical bore and the second cylindrical bore is about 90.
5. The pipe coupling of Claim 1, wherein the angle between the first cylindrical bore and the second cylindrical bore is about 120 degrees.
6. The pipe coupling of Claim 1, wherein the angle between the first cylindrical bore and the second cylindrical bore is about 135 degrees.

11. A pipe coupling consisting of:
an elongated housing having a first end and a second end, the housing defining an elongated bore therein;
a stop located on an inner diameter of the housing, the stop located between the first end and the second ends of the housing, wherein a distance from the stop to one of the first and second ends is at least two times a distance from the stop to the other of the first and second end of the housing;
a first cylindrical bore extending from the first end to the stop; and
a second cylindrical bore extending from the second end to the stop, wherein the angle between the first cylindrical bore and the second cylindrical bore is about 15 degrees to about 165 degrees, and wherein each of the cylindrical bores are configured to allow a pipe end to advance into the pipe coupling until reaching the stop.

23. A pipe coupling comprising:
an elongated housing having a first end and a second end, the housing defining an elongated bore therein;
a single stop located on an inner diameter of the housing, the stop located between the first end and the second ends of the housing, wherein a distance from the stop to one of the first and second ends is at least two times a distance from the stop to the other of the first and second end of the housing;
a first cylindrical bore extending from the first end to the stop; and
a second cylindrical bore extending from the second end to the stop, wherein an angle between the first cylindrical bore and the second cylindrical bore is about 15 degrees to about 165 degrees.

24. The pipe coupling of Claim 23, wherein the angle between the first cylindrical bore and the second cylindrical bore is about 45 degrees.

25. The pipe coupling of Claim 23, wherein the angle between the first cylindrical bore and the second cylindrical bore is about 60.

26. The pipe coupling of Claim 23, wherein the angle between the first cylindrical bore and the second cylindrical bore is about 90.

27. The pipe coupling of Claim 23, wherein the angle between the first cylindrical bore and the second cylindrical bore is about 120 degrees.

28. The pipe coupling of Claim 23, wherein the angle between the first cylindrical bore and the second cylindrical bore is about 135 degrees.

29. The pipe coupling of Claim 1, wherein the stop is a single stop located on the inner diameter of the housing.

30. The pipe coupling of Claim 11, wherein the stop is a single stop located on the inner diameter of the housing.

31. The pipe coupling of Claim 1, wherein the angle between the first cylindrical bore and the second cylindrical bore is about 45 degrees to about 135 degrees.

32. The pipe coupling of Claim 1, wherein the angle between the first cylindrical bore and the second cylindrical bore is about 60 degrees to about 90 degrees.

33. (Withdrawn) The pipe coupling of Claim 1, wherein the stop is a circular ring.

34. (Withdrawn) The pipe coupling of Claim 1, wherein the stop is at least two rectangular inserts.

35. (Withdrawn) The pipe coupling of Claim 1, wherein the stop is two half circles.

36. The pipe coupling of Claim 23, wherein each of the cylindrical bores are configured to allow a pipe end to advance into the pipe coupling until reaching the stop.

IX. EVIDENCE APPENDIX

None

X. RELATED PROCEEDINGS APPENDIX

None